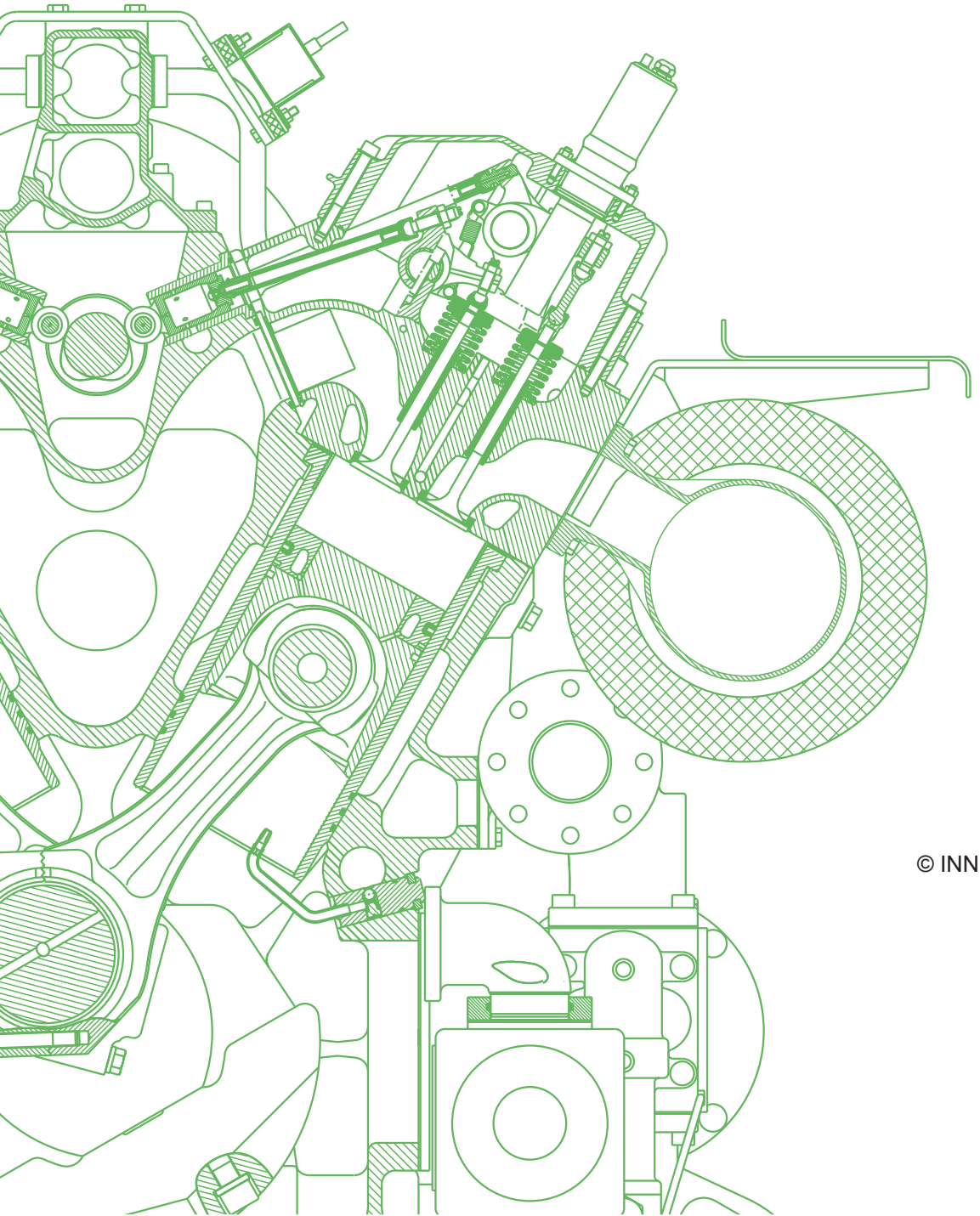
JENBACHER

W 8024 M0

Maintenance Instruction

Exhaust gas turbocharger



Achenseestr. 1-3
A-6200 Jenbach, Austria
www.innio.com

JENBACHER
INNIO

The target recipients of this document are:

Customers, distribution partners, service partners, commissioning partners, subsidiaries/branches, Jenbach location

1 Scope

This Maintenance Instruction (W) applies to the following exhaust-gas turbochargers:

- KBB, type HPR 4000 for Type 3 engines

2 Purpose

This Maintenance Instruction (W) lays down the maintenance interval and describes the following activity:

- ⇨ Inspecting the compressor side of the exhaust-gas turbocharger

3 Maintenance interval

Maintenance work	Maintenance interval	Carried out by *)
⇨ Inspecting the compressor side of the exhaust-gas turbocharger	10,000 Oh	K
⇨ Overhauling the exhaust-gas turbocharger	20,000 Oh / 5,000 starts / 5 years 1)	INNIO
⇨ Replacing the turbine housing (hot gas package only)	20,000 Oh / 5,000 starts / 5 years 2)	INNIO
⇨ Replacing the drive unit or turbocharger	60,000 Oh	INNIO

1) 5 years only if the engine is stopped for longer than 1 year.
2) Only for turbochargers with part no. 1231501/1231502 (hot-gas package)

Valid for:

• Type 3: Maintenance schedule A

Maintenance work	Maintenance interval	Carried out by *)
⇨ Inspecting the compressor side of the exhaust-gas turbocharger	10,000 Oh	K
⇨ Overhauling the exhaust-gas turbocharger	20,000 Oh	INNIO
⇨ Replacing the turbine housing (hot gas package only)	20,000 Oh 1)	INNIO
⇨ Replacing the drive unit or turbocharger	60,000 Oh	INNIO

1) Only for turbochargers with part nos. 1231501/1231502 (hot-gas package)

Valid for:

• Type 3: Maintenance schedule B Maintenance schedule D

Maintenance work	Maintenance interval	Carried out by *)
⇨ Inspecting the compressor side of the exhaust-gas turbocharger	10,000 Oh	K
⇨ Overhauling the exhaust-gas turbocharger	20,000 Oh / 5,000 starts / 5 years 1)	INNIO
⇨ Replacing the turbine housing (hot gas package only)	20,000 Oh / 5,000 starts / 5 years 2)	INNIO
⇨ Replacing the drive unit or turbocharger	80,000 Oh	INNIO

1) 5 years only if the engine is stopped for longer than 1 year.
2) Only for turbochargers with part no. 1231501/1231502 (hot-gas package)

Valid for:

• Type 3: Maintenance schedule C

*) Carried out by	This column defines who carries out the maintenance work.
K	This activity is to be carried out by the customer, INNIO or a company selected and authorised by INNIO to carry out this work.
INNIO	This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

4 Safety information

⚠ WARNING

Danger from unauthorised restarting

Serious injuries such as cutting, crushing, severing or shearing of body parts due to unintentional contact with rotating or moving machine parts.

- ➢ Shut down the engine as described in TA 1100-0105.
- ➢ Secure the engine against unauthorised restarting in accordance with TA 2300-0010.

5 Additional information

Relevant documents

TA 1100-0105 – Engine shut-down

TA 2300-0010 – Guidelines for using the LOTO kit

6 Work steps

6.1 Inspecting the compressor side of the exhaust-gas turbocharger

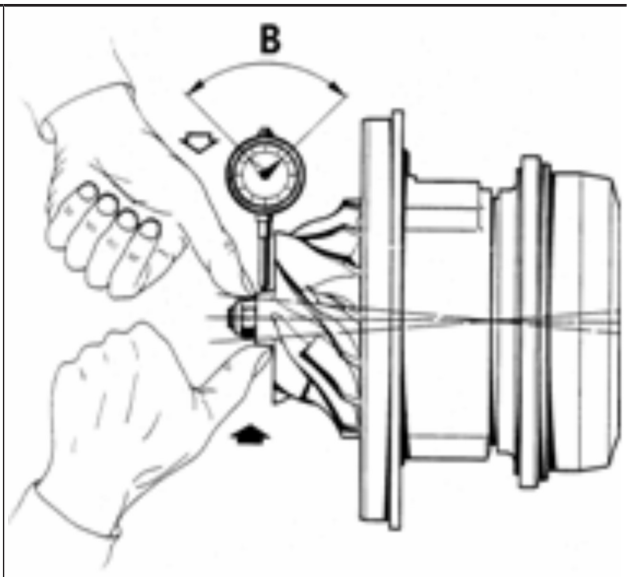
The inspections below can be carried out at the turbocharger side when the exhaust-gas turbocharger is assembled. Remove the compressor casing at the mixture inlet.

Visual Inspection

- Check the turbocharger housing for deposits.
- Check the impeller for damage.

Radial play inspection (tilting play) compressor side B = < 0.6 mm

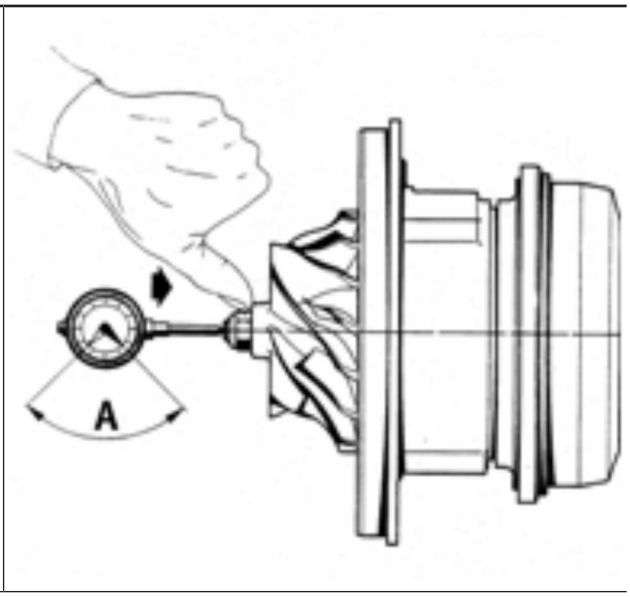
- Position the indicating calliper radially on the impeller hub.
- Press the hub upward and then downward.
- Read the radial rotor offset on the indicating calliper; the tilting play must be < 0.6 mm.



The radial play (tilting play) only enables you to check the amount of wear.
You cannot judge the bearing surface condition (scoring etc.) based on the radial play.

Axial play inspection (A = 0.1 – 0.18 mm)

- Position the indicating calliper axially on the compressor-side shaft end.
- Press the shaft towards the turbine side; set the indicating calliper to "0“.
- Pull the shaft slowly towards the compressor side.
- Read the axial play (rotor - bearing) on the indicating calliper; the play must be 0.1 – 0.18 mm.



Rotor concentricity deviation inspection

- Position the indicating calliper radially on the impeller hub.
- Turn the rotor counter-clockwise.
- The concentricity deviation is shown on the indicating calliper; the play must be < 0.02 mm.

6.2 Overhauling the exhaust-gas turbocharger

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

6.3 Replacing the turbine housing (hot gas package only)

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

6.4 Replacing the drive unit or turbocharger

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

7 Revision code

Revision history

Index	Date	Description / Revision summary	Expert *Auditor*
5	30.04.2019	GE durch INNIO ersetzt / GE replaced by INNIO	**Fallzberger F.** *Pichler R.*
4	31.07.2018	Standard Peaking Wartungsintervall ergänzt / Standard peaking maintenance interval added	**Lopez F.** *Boewing R.*
3	31.03.2017	Strukturelle Anpassungen / Structural adaptions Intervall 20 000 Bh - Turbolader Gehäuse erneuern (Heißgas-Paket) hinzugefügt / Interval 20,000 Oh – Turbocharger housing replacement (Hot gas package) added	**Lopez F.** *Boewing R.*
2	10.06.2010	Anpassung Schutzvermerk / Adjustment Classifcation	**Provin** *Provin*
1	26.05.2010	Umstellung auf CMS / Change to Content Management System ersetzt / replaced Index: **b**	**Provin** *Licht*